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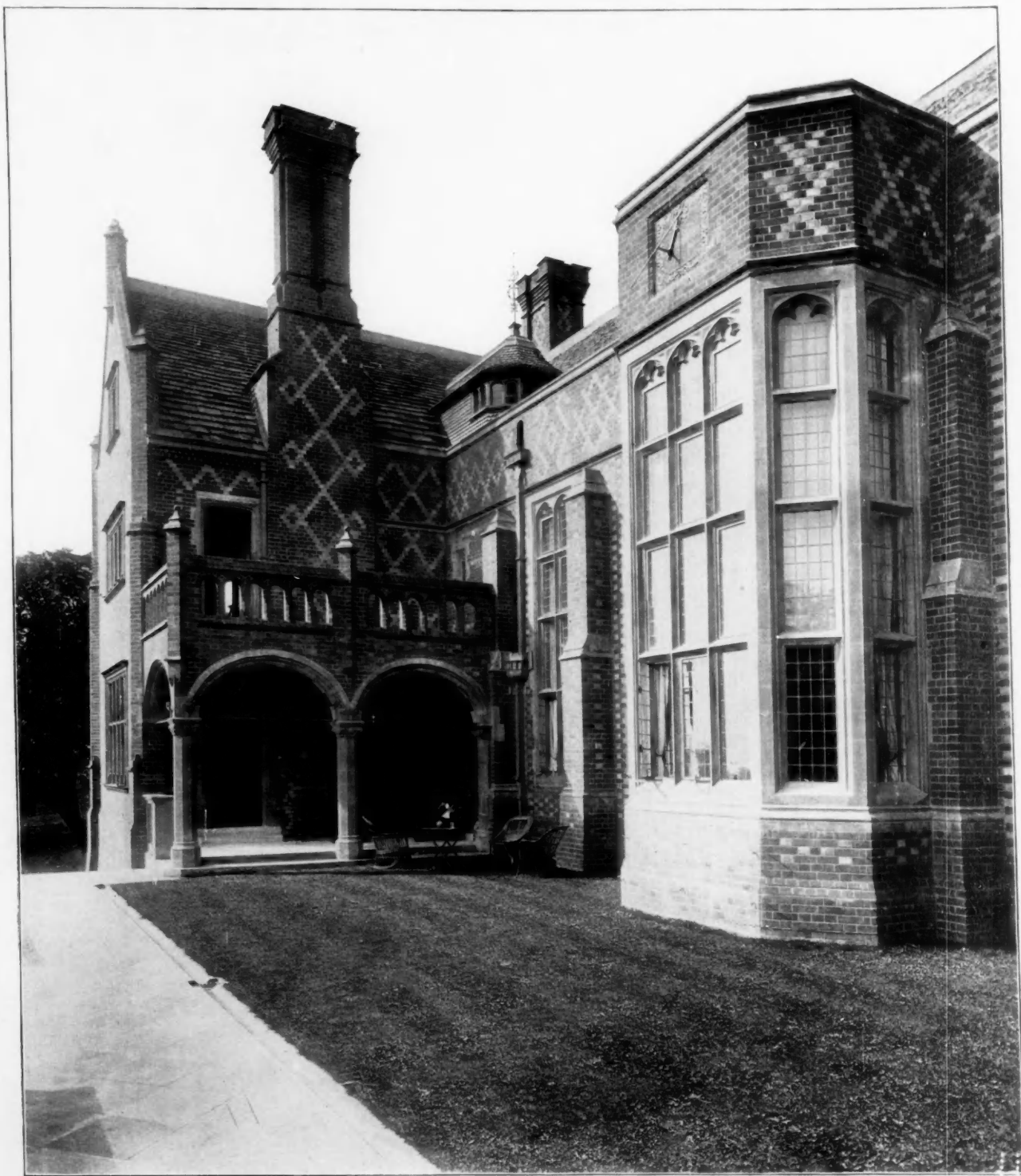
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SUPPLEMENT TO THE BRICKBUILDER.

OCTOBER, 1892.



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VIEW OF SHIPLAKE COURT, ENGLAND, FOR R. W. C. HARRISON, ESQ.
ERNEST GEORGE AND PETO, ARCHITECTS, LONDON.

20

The Brickbuilder.

VOL. I.

BOSTON, OCTOBER, 1892.

No. 10.

THE BRICKBUILDER.

AN ILLUSTRATED MONTHLY DEVOTED TO THE ADVANCEMENT OF BRICK ARCHITECTURE

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The following appears in the editorial columns of a recent number of *Stone*:—

"Imitation seems to be the besetting sin of builders. The great aim now is to erect pretentious structures which shall compare in outward appearance with the better class of buildings, and at the same time be put up at the minimum of cheapness. This point is well illustrated in Indianapolis in the construction of the new building to replace the old death-trap used for a medical and surgical institute, destroyed by fire with such appalling loss of life. The new institute building will be more substantial than the old one, but cheapness is the object aimed at, while the desire to imitate the outer appearance of a noble building is strong. To carry out this design rock-faced brick are being used in construction. These brick are made in imitation of sandstone, which is so often used in public buildings. No argument in favor of the use of such material can be advanced excepting that of cheapness, and to secure that end, durability and solidity are sacrificed, and buildings erected adorned with the most ornate ornamentation to cover up defects in material or construction. Those who have the erection of this institute building in charge are no more offenders than hundreds of others. It is a spirit which has seized the people, and until the incubus can be shaken off there will be more or less of cheap, unstable buildings. It were better that the buildings in all such cases be made smaller so that the genuine stone could be used in construction and at the same time keep within the limit of cost. If rock-faced building stone is to be imitated, it is surely a strong argument in favor of the use of genuine stone in the erection of buildings. Only good things are imitated, and 'imitation is the sincerest flattery.' It would be well for those contemplating the erection of any building to stop and consider carefully before accepting rock-faced brick in the place of stone, merely because it costs a few dollars less."

Our esteemed contemporary is certainly mistaken in supposing that it is "merely because it costs a few dollars less" that people are led to use rock-faced brick in place of stone. Every one else has long since discovered, if *Stone* has not, that brick is much more durable than stone, and undoubtedly it is the greater durability of the brick, and its superior fire-resisting quality, coupled with the liking many people seem to have for a rock-faced brownstone front, which leads to the use of this imitation; a "flattery" which is entirely uncalled for in our opinion, as good brickwork makes a more beautiful wall than any rock-faced brownstone ever quarried. But even if this were not so, we deplore the imitation as much as the

writer in *Stone*. The imitation of one material in another is never desirable artistically. The best results are always obtained, as we have frequently had occasion to insist, by making the characteristic qualities of the material the very means of producing effect. Had *Stone* confined itself to the artistic argument we should not have had a word to say. But when it says "no argument in favor of the use of such material can be advanced except that of cheapness," it is clearly beyond facts which it ought to be familiar with.

The principal argument in favor of the use of brick or terra-cotta materials is that they are more durable than stone, and vastly superior in fire-resisting qualities as has been repeatedly proved, and the provisions of the best building acts show that this is universally admitted. Artistically these materials are capable of as noble treatment as any, if only their characteristic qualities are respected.

In the last number we referred to the criticism of THE BRICKBUILDER contained in the *Architectural Era*, and reprint it here. We regard this notice of more than ordinary value, coming as it does from Prof. C. Francis Osborne, of Cornell University, who, since taking the editorship of the *Era*, has brought it up to a high standing as a critical journal of architecture:—

"There is no journal which comes to our office table is read with more interest and pleasure than is THE BRICKBUILDER. Like most papers issued for the purpose of advocating a reform, it is not lacking in vigorous and decisive writing, and where the reform is one of which we can approve, nothing is lacking to put us *en rapport* with its staff of writers, or for the enjoyment of its contents. The first number appeared in January of the current year and announced its mission to be the improvement of the art of brick composition in this country, by bringing the brickmaker and the architect into more intimate relations, by publishing views of the best brick architecture of the Old World, and by inviting friendly competition among its readers for problems in artistic arrangements of burnt clay. It has contained an abundance of sound and vigorous writing on its special topics, and we would especially commend to our readers the article in the first issue, entitled 'A few neglected Considerations with regard to Brick Architecture,' which sets forth most of the important truths regarding brick composition. The illustrations are of the same excellent quality as the text, and include photographs of the interior court of the Certosa at Pavia, one of the most beautiful combinations of brickwork and terra-cotta in the world; of the Foro dei Mercanti, at Bologna, an admirable example of a street façade in pointed architecture; and scale detail drawings of the Ames Building, of Sever Hall, and of other noted recent brick buildings, together with the competition drawings above referred to, the most interesting of which is, perhaps, Mr. Van Straaten's design for a brick church. There are also special detail sheets of moulded bricks, and separate features such as windows, doors, cornices, etc., all carefully selected and of excellent artistic merit, and taken altogether the journal is one which is well-nigh indispensable to every architect who works with burnt clay products."

We doubt if any candid person at all acquainted with the tendencies of modern architecture will deny that the ornamental brick manufactured in America are miserably inadequate in point of design. Granting their mechanical perfection, almost all patterns of an

ornamental character must be crossed off the catalogues as out of the question for use, by every well-trained architect. This done, there remain a few plain and simple mouldings that are perhaps acceptable. Even these are thoroughly commonplace, made with rule and compass. The architects are responsible for this, and have none but themselves to blame. How many, when condemning the stock patterns, have shown any inclination to help the manufacturer to secure a better selection of designs? How many have offered any useful criticism, have suggested anything to replace the patterns they would throw out? Perhaps, when ornamental bricks were first made in this country, architects did not know they were bad in design. But that is no excuse for not doing their duty now. There is no question but that the manufacturers would do theirs. The man in charge of the large brick companies are men of high business ability, quick to see the financial advantage of manufacturing bricks acceptable to architects. They are sparing no expense to secure the best results, and the improvements in brick manufacturing show that it is on the artistic side only that they are lacking. Any advances towards co-operation on the part of the architects would be quickly met by the manufacturers, possibly excepting one or two who, through gross stupidity, consider their designs of the highest artistic character.

An examination of catalogues will reveal a striking similarity in designs. Perhaps this is due to all companies following the lead of some pioneer, a case of blind leading blind. But to a large extent this can be accounted for by the expense and trouble of obtaining original moulds, which has led to the smaller makers buying their moulds from the brick machine makers. There has recently come to us a mould catalogue issued by a manufacturer of a repress machine, in which we find all the patterns common to the majority of manufacturers. The machine maker evidently took his ideas from the first makers of ornamental bricks, and thus these unsuitable moulds are being distributed through the country, to the detriment of brick architecture. It is no more expensive to make good moulds than to make bad ones, and any organized effort on the part of architects would, we are sure, result in placing in the hands of all small manufacturers of ornamental bricks a set of moulds that would be of real use to the architects.

For some time we have been studying a plan whereby THE BRICKBUILDER, as an organ for the interchange of ideas between architect and manufacturer, striving to advance their common interests, could, with proper assistance from both sides, secure the general manufacture of a set of moulded bricks embodying the simple and fundamental mouldings. If by some definite action a series of designs could be agreed upon, as generally useful in ornamental brickwork, it would be a question of but a short time before these patterns would be supplied by all manufacturers.

We earnestly request correspondence from architects, in criticism of this plan, and hope that all who read this and have any interest in better brick architecture will give us the benefit of their ideas.

THE ILLUSTRATIONS.

Plate 73. Study for Business Premises, Ernest George & Peto, architects, London, England. Autograph Sketch, by Mr. Ernest George. This design was intended to be executed in terra-cotta, using facing slabs of terra-cotta for the wall surfaces in a manner that has become not uncommon in England of late years, and which has often been abused so as to produce an imitation of stone rather than an appropriate terra-cotta treatment. In the present case this defect has been, to some extent at least, avoided by the character of

the design and the treatment of detail suggested, though much would depend, of course, on the way in which it was worked out. The design, as a whole, is agreeable in masses and well proportioned.

Plate 74. Detail of South Gables of Shiplake Court, Ernest George & Peto, architects. This is a detail of the gable seen in sharp perspective to the left of our supplement, which gives a view of one portion of this charming manor house, of which we gave a general view of the north front, with details of some of the brick patterns in our August number. To our mind this is one of Messrs. Ernest George & Peto's most admirable designs, and we have long regarded their buildings as among the best produced by English architects now living, and it is for this reason we have been at the pains to present a representative example of their work to our readers. As a suggestive and attractive little detail we would point out the combination of roughly squared flint stone with brick in the basement of the house, the same design being carried out in the fence wall shown in Plate 79. The house is situated near the river and commanding a fine view of it at Henley on Thames.

Plate 75. THE BRICKBUILDER Competition No. 4, fourth prize by J. T. Maclaren, Philadelphia.

Plates 76, 77. Elevation of the Banks Building, New York City, R. W. Gibson, architect, 18 Wall Street. This is a quite characteristic example of recent New York office buildings of moderate size referred to in the article by our New York correspondent, Mr. John Beverley Robinson.

Plate 78. THE BRICKBUILDER Competition No. 6, first prize, Louis Sonntag, Philadelphia. Second prize, H. G. Fletcher, Boston.

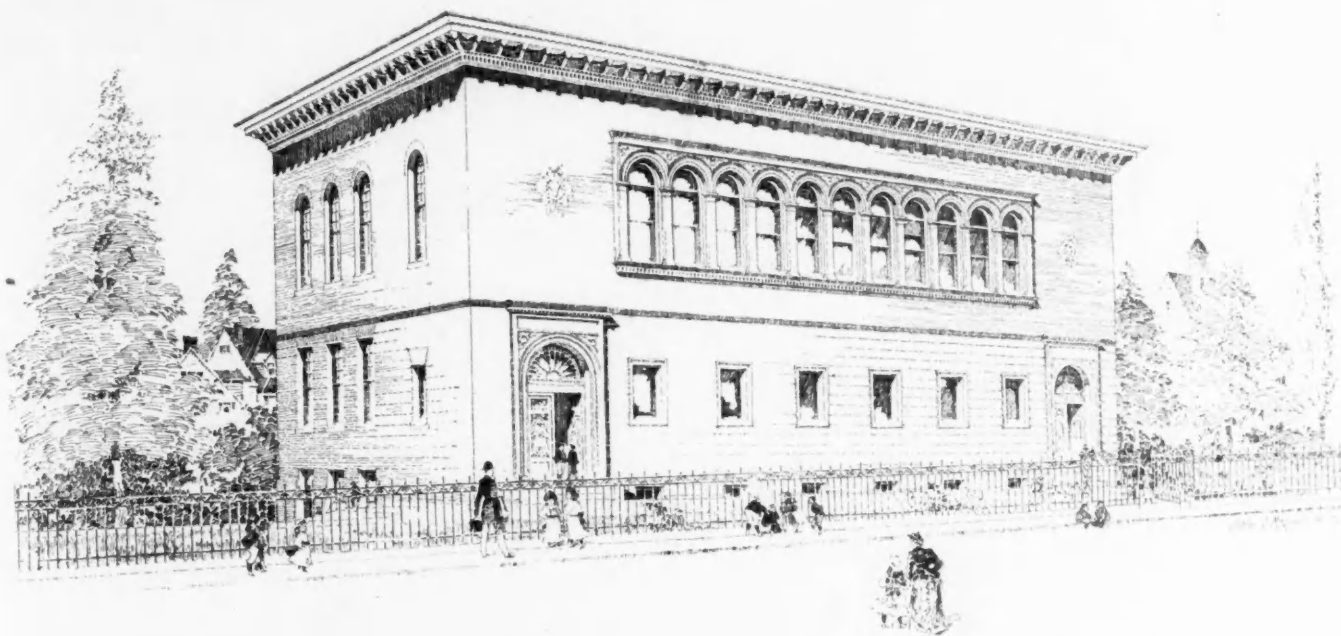
Plate 79. Brick Wall and Gateway at Shiplake Court, Ernest George & Peto, architects, London, England. THE BRICKBUILDER Competition No. 6, third prize, Harry M. Warner, New York City.

Plate 80. THE BRICKBUILDER Competition No. 6, "Hors de Concours," designs by Will S. Aldrich, Somerville, Mass. These designs are better than any entered in competition, but were received too late. The second of these designs as compared with the third prize design shows a good, as compared with a poor, treatment of pilaster and supporting arch.



THE CENTURY CLUB, NEW YORK CITY.

This building is one of the later buildings by McKim, Mead & White, to which Mr. John Beverley Robinson refers in his New York letter, published in this number. We are indebted for the cut to the *Architectural Review*, which publishes scale details of the terra-cotta work.



PRIMARY SCHOOL, HAROLD AND HOMESTEAD STREETS, FOR CITY OF BOSTON. [EDMUND M. WHEELWRIGHT, CITY ARCHITECT.]

RECENT BRICKWORK IN BOSTON.

It would be difficult to find a more appropriate subject for the first of a series of articles or, rather, "letters,"—for the writer will not attempt more than informal correspondence,—than the group of buildings which bear testimony to Mayor Matthews' wisdom in his appointment of a city architect. It is probably the first instance of an American municipality intrusting the erection of public buildings to a trained architect, acting as a regular city official, and the success of Boston's experiment will, we hope, induce other cities to follow her example.

Mr. Wheelwright's work has been spoken of in these columns before now, and some of his drawings have been published in the plate department of *THE BRICKBUILDER*, so that to most of my readers his work is not unknown. It is of particular interest to us, in that it seems to be the gradual working out of the problem of cheap, durable, and, at the same time, artistic building. It is true that thus far the work done has been largely of one type, but enough is now standing to demonstrate that the same principles can be applied to other types with similar success. In taking up the duties of the office, Mr. Wheelwright found a number of buildings in various stages of completion, and these he carried out according to the original plans and specifications.

The first work started by Mr. Wheelwright was the primary school at Orient Heights, East Boston, near Winthrop Junction. This schoolhouse is of simple design, well proportioned, with brown-stone sills and a terra-cotta cornice very much larger than that of the Glen Road School, already published in this paper, but with detail much the same, lacking the "kick" which characterizes the later building. The bricks used in this and all other school buildings, except the Agassiz Grammar School and the primary school on Harold and Homestead Streets in Roxbury, are common red water-struck Eastern bricks. When the work is ready for estimates, a specimen brick is exhibited to the contractors, and the contractor securing the job is required to furnish a sample brick to match. This is retained in the architect's office, and is the standard by which the architect is to judge. In the Orient Heights School, the bricks are laid in white

mortar, with thick joints, the basement being coursed off to give the effect of rustication. Almost simultaneously with the above, a primary school was started on Glen Road, Jamaica Plain, which has served as a model or type for several of the later school buildings. We have already published a perspective, Plate 9, No. 2, of this volume, and a plate of details in No. 6. On page 77 we give the first and second floor plans. This school is laid up entirely in Flemish bond, the first story being coursed by slightly recessing every sixth course. The basement and course lines are yellow or buff brick, and the whole building is laid in yellow mortar.

The cornice, the flat arches over the windows, and the window motive above the balcony, are of yellow terra-cotta brick. This school is practically the counterpart of the Glen Road School, differing only in the manipulation of the plan and a few trifling details.

Very similar to the Glen Road School is the B. F. Tweed school in Charlestown. At the corner of Bowe and Wyman Streets is a primary school, built throughout of common bricks, Flemish bond, red mortar, except at the levels of window sills and heads, where stretcher courses are laid in yellow mortar. Every one in seven courses is a header course, laid flush.

About the time the above was started, Mr. Wheelwright began the erection of an engine house in Andrews Square, South Boston. The appropriation was for a single house, but a double one was actually built, which, while not so interesting as some of the brickwork, is still a long way ahead of the previously existing engine houses. One of the most pleasing of the more recent buildings the city has erected is the Brighton Police Station, on Washington Street, in the Brighton district. A sketch is published herewith. It is of "Cartraig" Scotch fire-brick, upon a granite basement, the trimming being buff terra-cotta. The front porch is of wood. The effect of the entablature is exceedingly good, the cornice being well worked out, and the broad frieze being decorated with discs of rich Siena marble. Were it possible to do so in conservative language I would like to draw comparisons between this building and some of

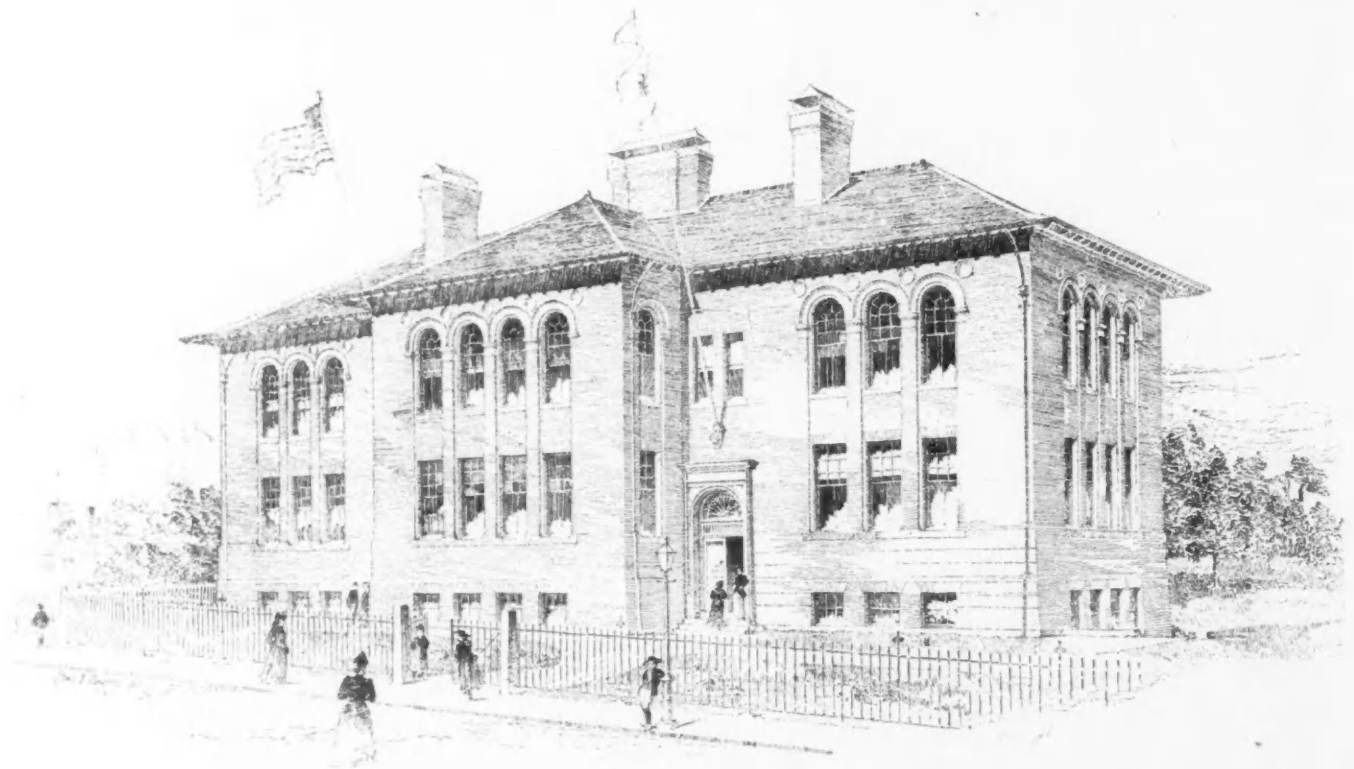
the so-called "Romanesque" work, of which the City of Boston is the unfortunate possessor.

A building which has previously been published, and of which a reduced cut is given here, is the Fire Department Headquarters, which is to have a striking tower, frankly studied from that of the Palazzo Pubblico at Siena. This building is built of what is now known as the "Madison Square Garden brick," supplied by Mr. E. H. Thomas of Philadelphia. This brick varies in shade from a light or pale, to a warm, reddish brown buff, and is laid up without sorting, allowing the shades to vary as they will. It seems that the brick used in the Boston building present more variation in color and run to darker tones than those in the Garden. It was intended to have a terra-cotta cornice to match the brick in color, but the terra-cotta failed so completely to answer this requirement, that it was rejected and a brick cornice will be built. On this building there is considerable stonework, which is executed in Amherst stone. The pointed windows are arched by the Italian method, illustrated in Plate 5,

color, one of the best of the recent buildings in the city. A dark red, terra-cotta brick, with trimmings an exact match, is used throughout the building save in the frieze, where a Southbridge brick, light red, is substituted. In connection with the detail in the February number, the use of various bonds and different colored mortars is fully explained so that there is no necessity for a description here. The discs that decorate the frieze and entrance are of Brescia marble, set in rings of red terra-cotta. The overhanging roof again replaces the cornice motive.

At Ashmont there is building an exceedingly interesting engine house, with a loggia feature in Amherst stone occupying the second story. And here again the overhanging roof is effectively used and the projecting rafters quaintly detailed. Very little attempt is made in this building to secure any effect in brickwork other than that of bonding. The Flemish bond is broken every fifth course by a course of stretchers.

In a primary school on East Third Street, So. Boston, we find Mr.



ROBERT GOULD SHAW GRAMMAR SCHOOL, FOR CITY OF BOSTON. [EDMUND M. WHEELWRIGHT, CITY ARCHITECT].

January of this year. The window openings are round headed, while the outer ring or label or voussoir have other centres, giving the effect of a pointed arch softened with its close connection with the round headed opening of the window.

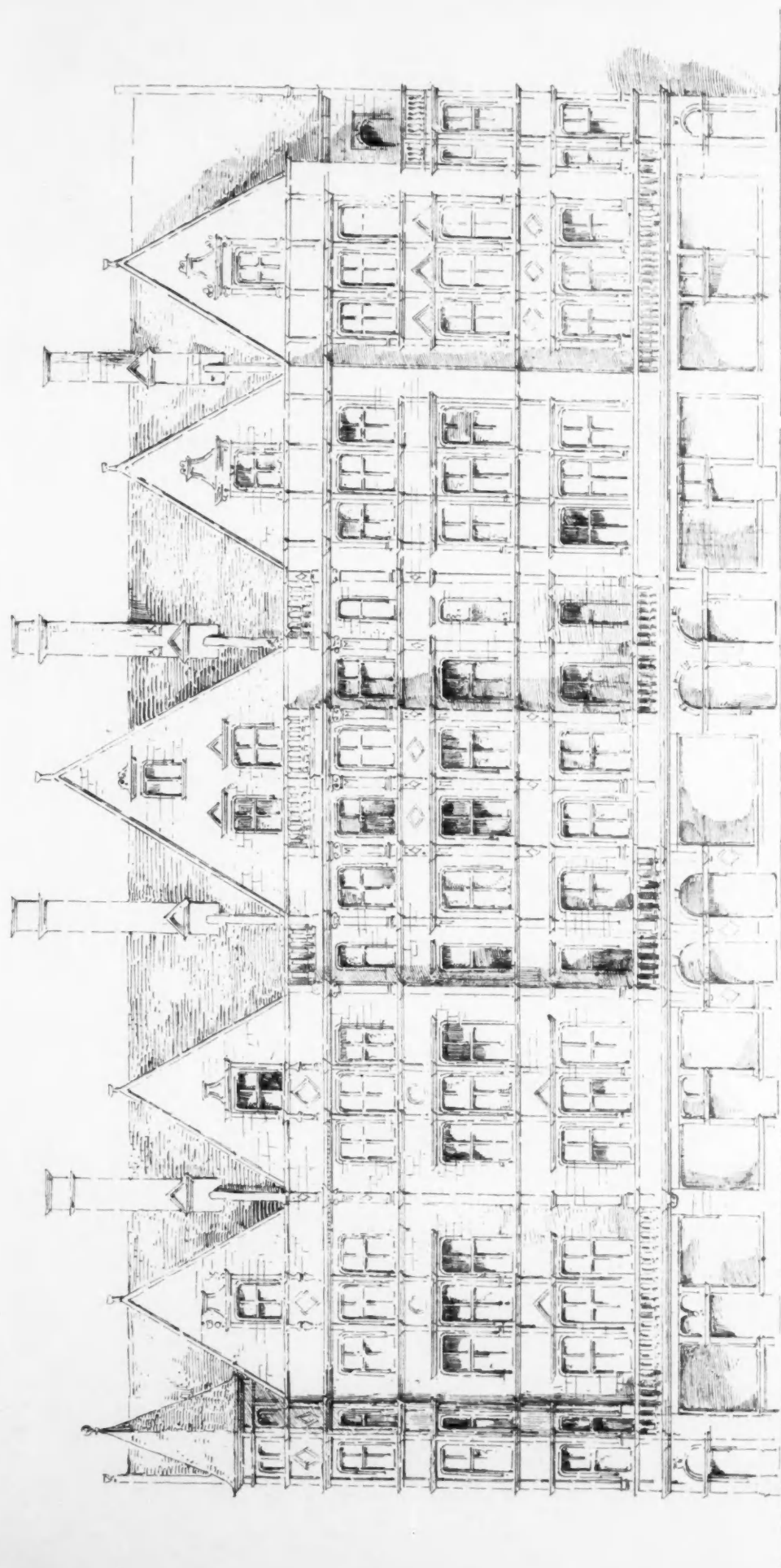
One of the most charming buildings in the whole city is the primary school on Harold and Homestead Streets, of Scotch fire-brick and buff terra-cotta. The perspective is published in this number. The details are most carefully studied throughout, and will be published very soon in another paper—a fact which prevents my securing them for illustration here.

The Robert Gould Shaw Grammar School is the first building in which the overhanging roof appears and the brick cornice disappears. This is also illustrated by a perspective sketch. The building is laid up in red mortar, the trimming being pressed brick and terra-cotta. This building, in proportion to its size, cost the city less than any school yet erected here. The Agassiz Grammar School, of which details were published in the February number (Plate 6), is, in

Wheelwright taking a suggestion from the charmingly proportioned little Court House (supposed to have been designed by Sir Christopher Wren) at Williamsburg, Va. The dark bricks are selected for quoins and trims, while in the arches to the windows, every other brick is white or very light in color. The white bricks, when carefully used, give the design that quality best designated by the slang word "kick."

I have attempted this time to run over the principal features of the work Mr. Wheelwright is doing for the city, that possesses particular interest in the line of brickwork. It is to be regretted that no process short of the most expensive of color processes will reproduce the three quarter scale drawings made in the city office; they are in every respect models of what such drawings should be. Besides the work above, there may be mentioned the Mechanic Arts High School, on Belvidere Street, close by the Back Bay Fens, a building in which the mill construction principle is followed; the Thornton and Fulda Streets school, which is essentially the same as

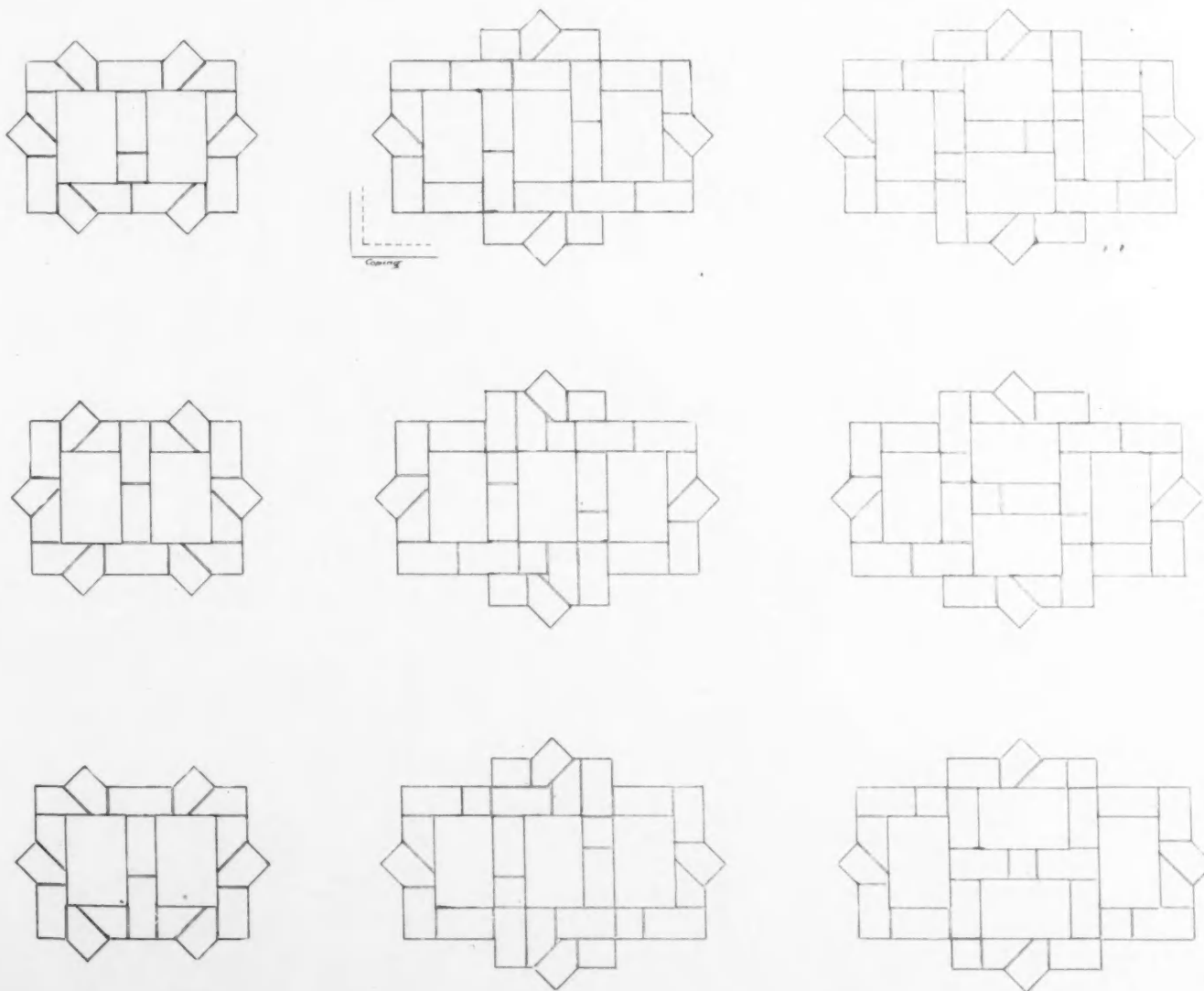
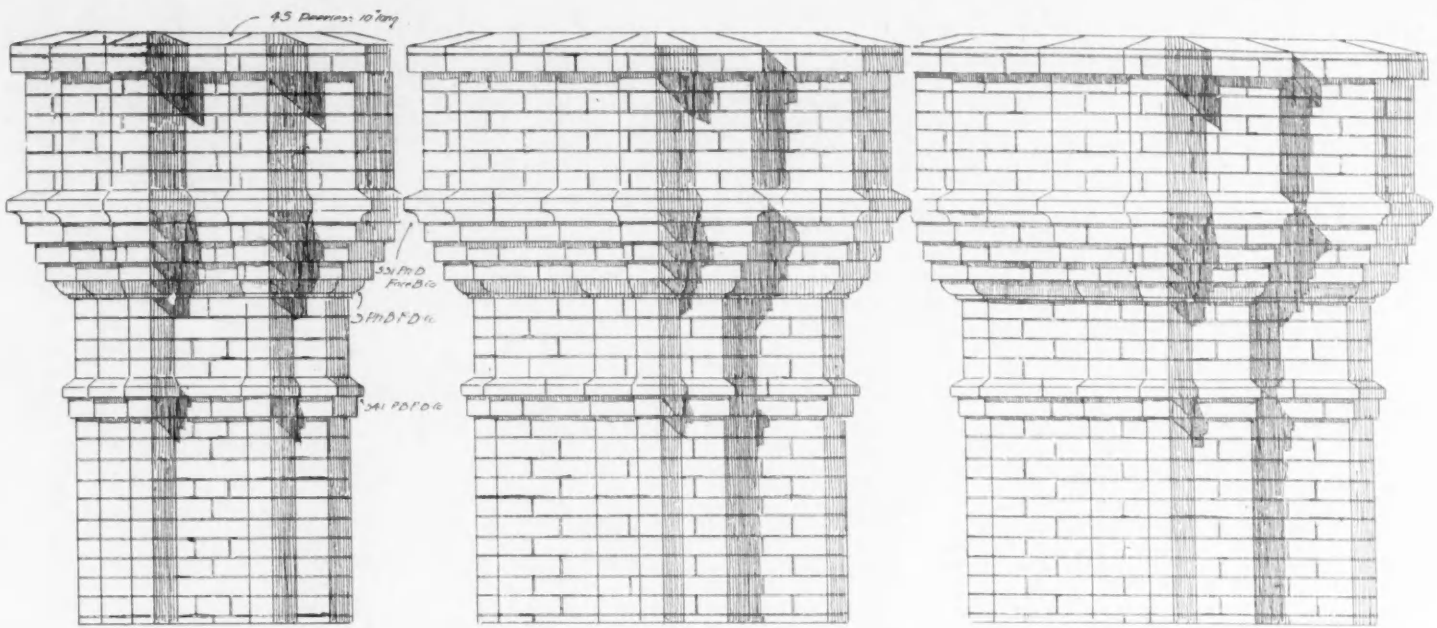
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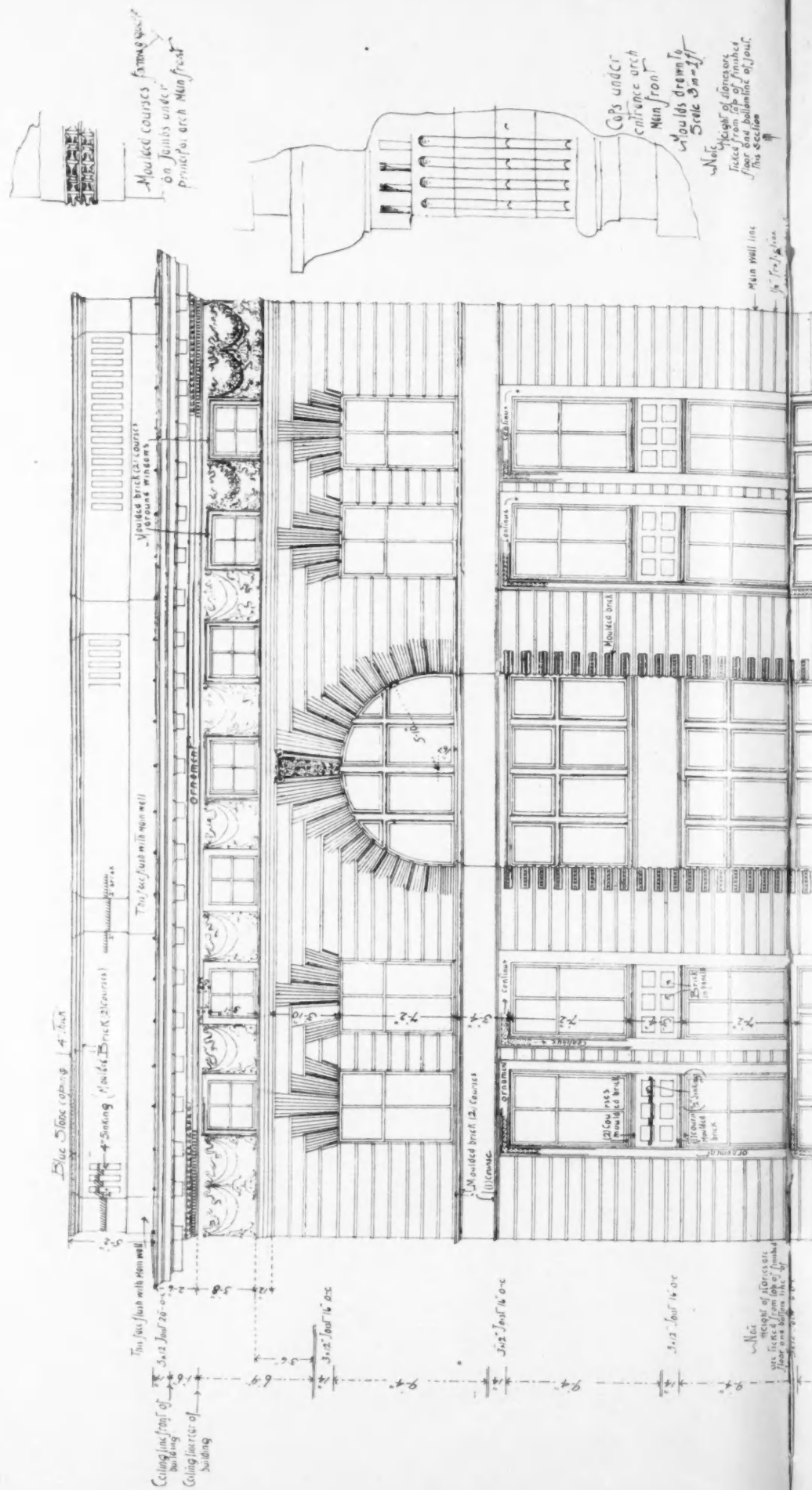
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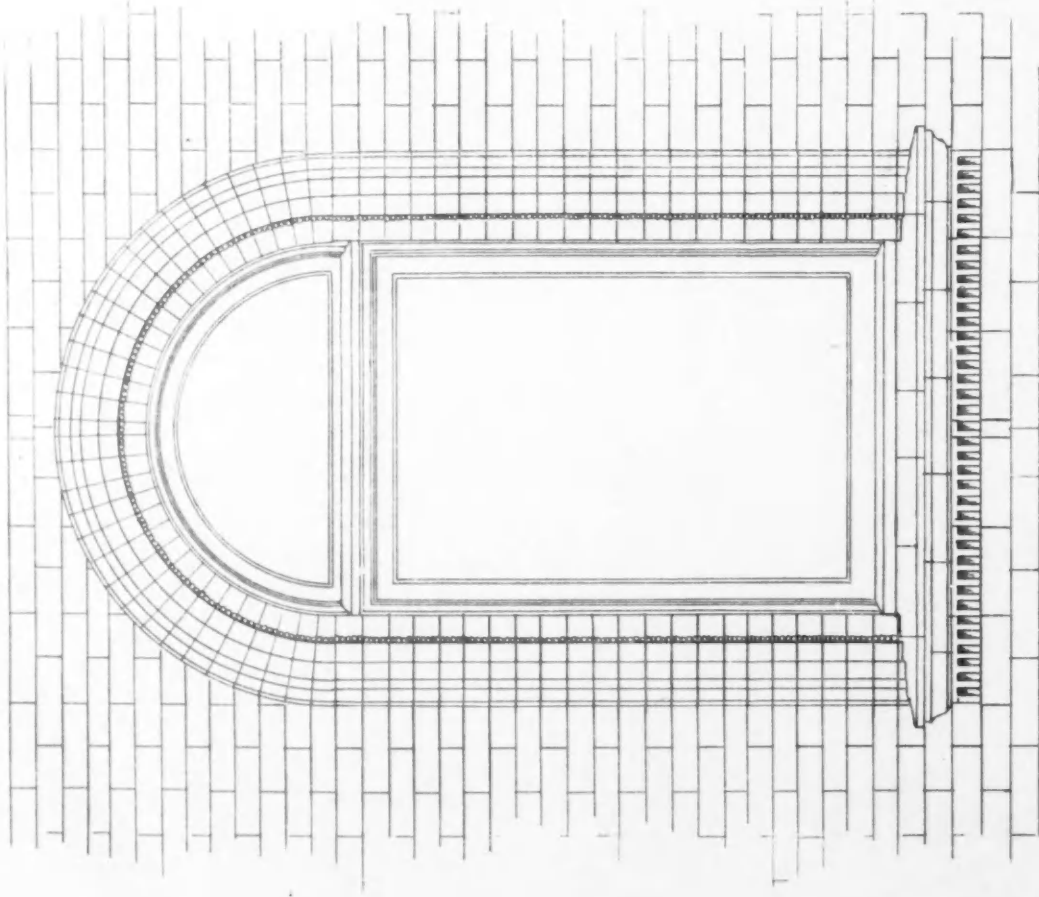
FOURTH PRIZE.

THE BRICKBUILDER COMPETITION No. 4.

By J. T. MACLAREN, PHILADELPHIA.

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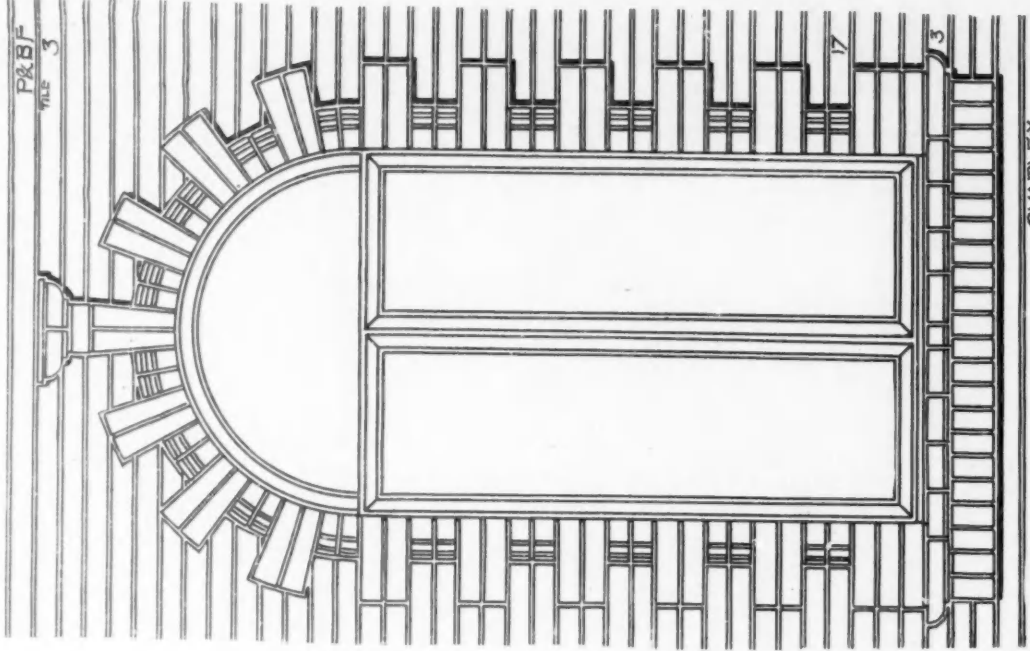
FIRST PRIZE.

LOUIS SONTAG, PHILADELPHIA.

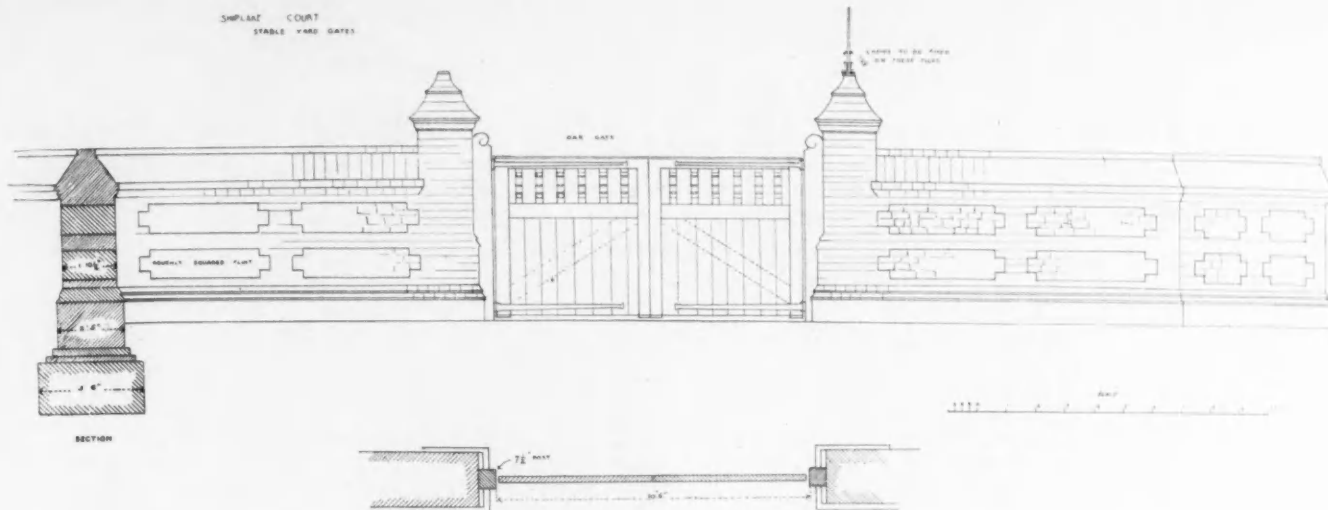
SECOND PRIZE.

H. G. FLETCHER, BOSTON.

THE BRICKBUILDER COMPETITION No. 6.

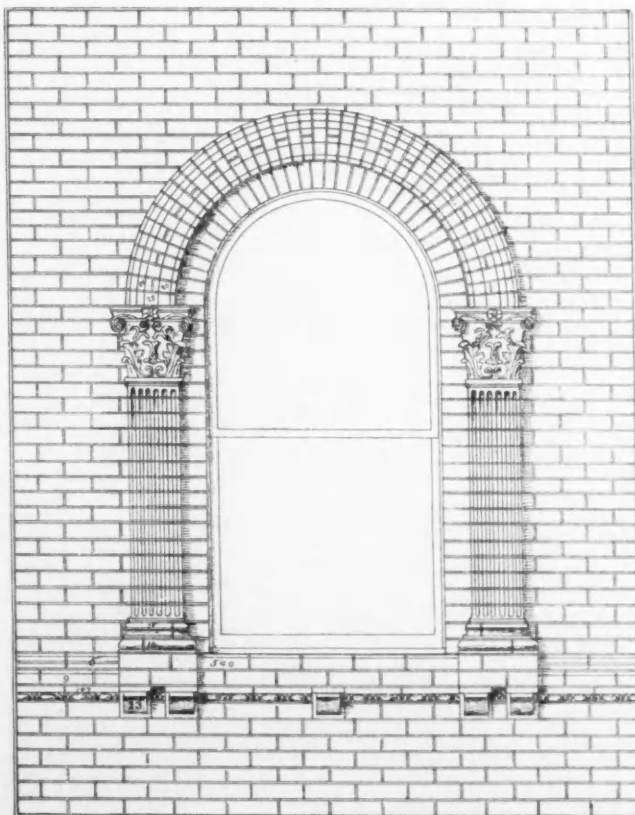


"SIMPLEX."

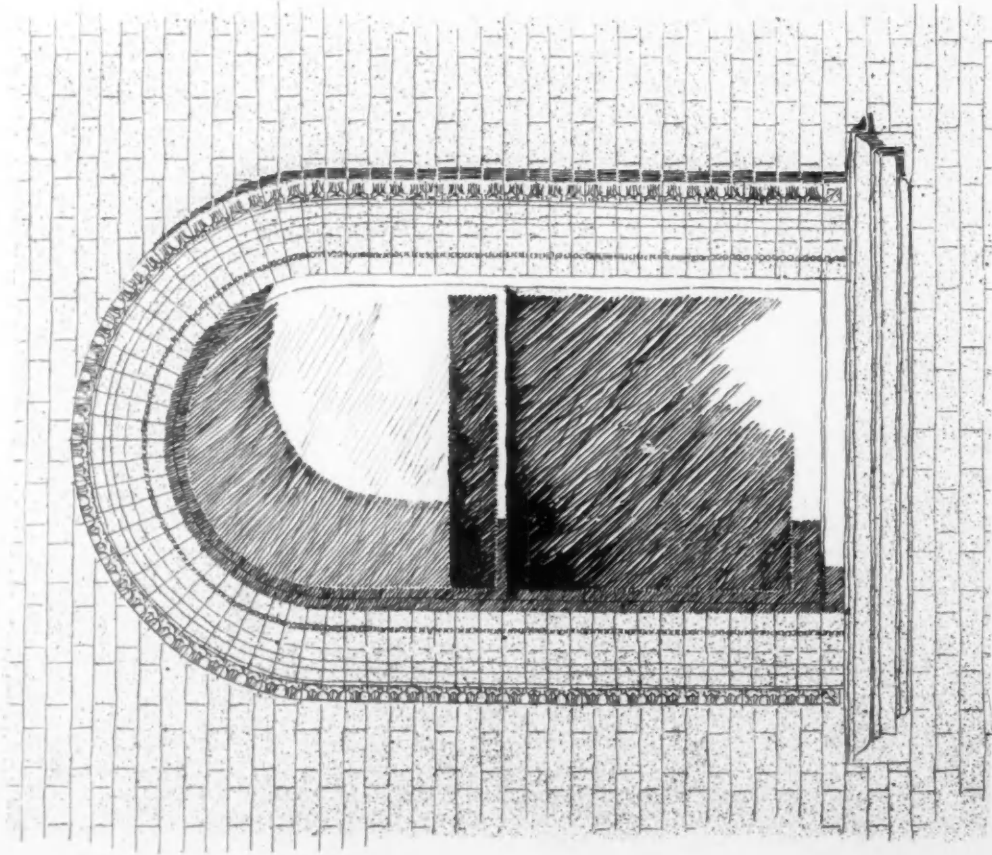


BRICK WALL AND GATEWAY AT SHIP LAKE COURT.

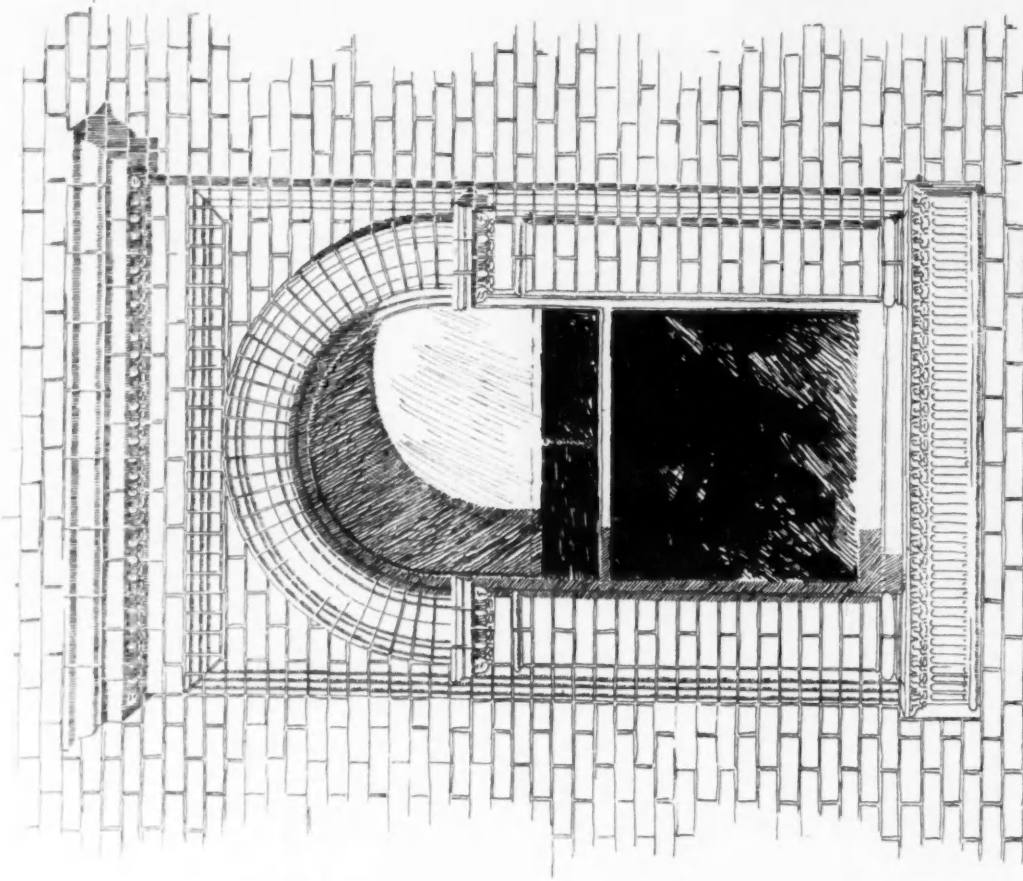
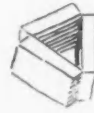
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*Philadelphia and Boston
Face Brick Co.
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*Philadelphia & Boston Face Brick Co's. No's. 7-10-16-22-24-25-117
Terra Cotta Sill*





POLICE STATION, BRIGHTON, FOR CITY OF BOSTON. [EDMUND M. WHEELWRIGHT, CITY ARCHITECT.]

that on Bowe and Wyman Streets; the Austin Primary School, Decatur Street, East Boston, which is of the same type as the Robert Gould Shaw School; the addition to Police Station No 13, and the City Hospital stables, interesting from the treatment of gables used.

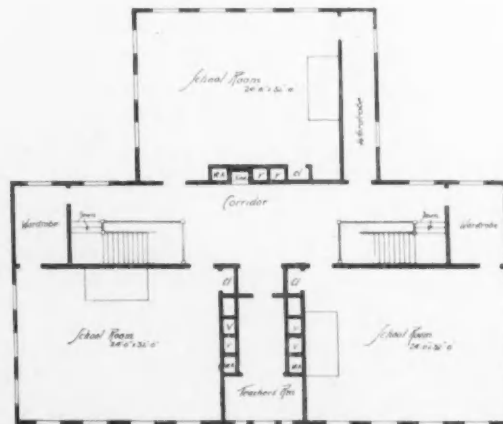
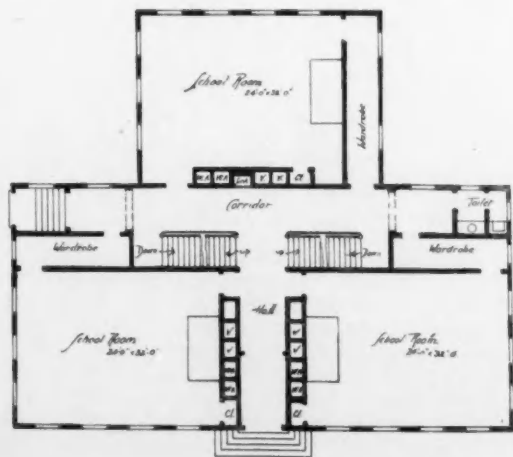
It will repay any student or any apostle of better brick architecture to make a visit to each of the buildings I have mentioned, as they represent the development of a simple, logical, and characteristic style of brickwork that promises well for the city work.

In another letter I will endeavor to describe and illustrate some of the admirable brick and terra-cotta work being done in mercantile architecture in Boston. Some of the older examples have been published in this paper, but one sees plenty of new material on all sides, and, what is encouraging, the larger portion of it is worthy of notice.

“PURITAN.”

A DOUBLE NUMBER.

The November and December issues of THE BRICKBUILDER will be combined and issued under one cover. The primary reason for so doing is to more satisfactorily present the results of our competition for designs of a \$2,000 brick house. Twenty-six designs have been submitted, and we wish to publish at least eight of these at once. As each design requires two plates, it will be necessary to double the usual number of plates. We can promise an exceedingly interesting number, with cleverly studied designs and carefully worked-up details. This number will be sent to any address for fifty cents in stamps, or to new subscribers whose names are received before Jan. 14, 1893, it will be sent free. Those sending fifty cents can, if they prefer, let their subscriptions date from this number, in which case the fifty cents will be credited on the subscription.



FIRST AND SECOND FLOOR PLANS OF THE GLEN ROAD SCHOOL.

RECENT BRICKWORK IN NEW YORK.

Of recent brick buildings in New York it may be briefly said that some hundreds, or some thousands, have been built, out of which a half-dozen, possibly a dozen, are worthy even of criticism; the rest, artistically speaking, might better have remained unbuilt. Fancy fronts, the speculative man calls them; more the style, he thinks, than the old style brownstone. Accordingly, he builds his hideous jumble of ungainlinesses, not even striving for beauty, striving only to make something "handsome"; that is to say, ostentatious, well knowing the bent of mind of his customers, and achieving the pieces of vulgar pretence that make the present the most hopeless age for architectural art of all the ages that have been.

Taste! you venture to suggest? No disputing about tastes, you say? For such is the demand, for such demand the builder must build. It is indeed irrefragable this old apothegm.

Gladly I admit the undeniable. There indeed is no disputing about tastes; no doubt at all that, to the taste of the vulture, carrion would be more acceptable than any delicacy which the great Vatel could concoct. By their tastes, as well as by their fruits, are men distinguishable.

Uptown there has been going on one of the biggest house-building performances known. Block after block, each block six hundred and odd feet long, of carefully and skilfully designed brick houses. Each block the work of a different designer; each designer picked from among those of highest standing.

Near by are more blocks, built solid, in the same way, by one who knew the stuff of which New-Yorkers are made. This man stuck to the old type. High stoop, brownstone (h. s., b. s.), as the real-estate dealer briefly puts it. Commonplace to an indescribable degree; copied, in fact, as literally as possible from existing houses. Perpetrated deliberately, too, by a man who knows what good design is, but who is outspoken in saying, "People don't want good design; people like bad design." It is not for me to cultivate high art, nor to elevate the tastes of the masses. My business is to build houses that will sell."

They did sell, I am told. Outsold, two to one, the well-designed ones, justifying the opinion and filling the pockets of the builder. The cleverly designed houses still hang fire.

That is why I am moved to denounce (yet why should I denounce?) vulture tastes.

Denunciation will not mend his taste; nor ought we to expect the buzzard to like *sauce piquante*, nor count it blameworthy in him that he does not.

Ostentatious vulgarity or sheer reckless ugliness, that describes the most of buildings nowadays built.

Of the remaining few that were built with some notion of making them beautiful, and that, therefore, challenge thoughtful admiration, criticism, there might be much said in praise or in blame. In all of these, however, one fact asserts itself, that they have been built by architects who knew what was beautiful and desired it, but who knew also that their audience neither knew nor desired beauty. Each one represents a struggle.

Take, for instance, the big Havemeyer Building, by Geo. B. Post. An eminently good building, all of brick with terra-cotta; plain below, unassuming, matter of course, suited to the heartachy affairs called "business" that go on behind its bricks. On top a cornice, beautiful in itself and solving a problem in design in a way to delight the initiated. The problem was to make a cornice somewhere near big enough for the fifteen or eighteen story building that it crowns; to make a cornice story-high, if possible.

It has been done here in a masterly way. Great Carians, white, or, at least, cream-white terra-cotta figures, stand one between each window, bearing upon their heads and Atlantean arms a classical cornice, which breaks around each figure, all except the crown-mouldings, which are continuous. This breaking around of the bed-mouldings is what makes this cornice what it is. At the immense height at which it is seen, Carian and block of bed mouldings merge together into an enriched bracket-shaped mass, strong enough to be well seen as a cornice, notwithstanding the mass of building below.

One of the best things ever done in the way of cornices in all time, without a doubt.

I said crowned. Crowned it ought to have been, but crowned it is not. Two more futile, unnecessary stones are piled up above it, announcing as plainly as possible that they were added after the building was determined.



After-thoughts conspicuously repugnant, no doubt, to the architect as much as to the critic; sacrifices to "shent per shent," with no thought of Aphrodite Ouraneia.

Then there is a whole group of McKim, Mead & White buildings, almost all of a type, buff and white, or buff and a paler buff. Enriched quoins, alternating with plain, or the quoins extended into enriched bands across the whole of a story or two, or even throughout a façade.

Exceedingly good work they all are, yielding to the demand for ostentation what must be yielded, but retaining such delicacy and, withal, real beauty, that sincere admiration cannot be refused. Most of all must we admire the good fortune of architects who are strong enough, socially and financially, to have their own way and dismiss the client's crude notions with the little consideration they merit.

First among this group is the much written about Madison Square Garden, then there is the Imperial Hotel (is not the very name a corroboration of what I have been saying?), the Judson Memorial Church on Washington Square, the Yosemite apartment house, and an atrociously overloaded building at the corner of Broadway and 22d or 21st Street, I forget which. One of the blocks of houses spoken of above, and the best of them, is by the same architects, more in their earlier, quieter, and, to me, more pleasing manner.

Up in 58th Street, — absurd nomenclature, not a nomenclature at all in fact, and to a foreigner laughable, though we are partly used to it, — up in 58th Street is quite the most beautiful brick building that I know of, a steam building by W. C. Hazlett, a steam heating company's "plant," difficult plant to breed fair flowers upon. Indeed, when I say beautiful, I mean το πρέπον not το κάλον, the eminently suitable, with what may be of grace skilfully added, not the supreme embodiment of joy which need not be looked for anywhere when such Fescennine choruses as "Ta-ra-ra-Boom-de-ay" are our notion of the musical expression of joy.

Then there are some buildings of a few years past, built, some of them, before the "recent revival" of architecture, but good, notwithstanding, and the more praiseworthy as good work then was rarer. Among these first and foremost the Racquet Club Building at 6th Avenue and 26th Street, than which there is not a more carefully thought-out and original design.

At random, too, I think of the Manhattan and other storage warehouses; Ware, the architect of one, the architect of the other I have not learned; an admirable warehouse on Hudson Street, the architect of this also unknown to me. One or two good armories to keep down the populace, we having recently acquired a "populace" among other acquisitions, and some other buildings, of all which in due course I hope to send you some report.

JOHN BEVERLY ROBINSON.

67 Liberty St., New York, 23 August, 1892.

BRICKS AND JOINTS IN BRICKWORK.

From *Building News*.—(Concluded.)

For engineering works and heavy structures stocks of the harder kind are necessary. These, when broken in two, should present vitrified sections right through the length and thickness of the brick. These kinds of bricks are generally found in the heart of brick clamp, or towards the leeward side of the clamp, in which places the heat has been the greatest. A clamp of bricks often indicates the direction of wind and weather during the time of its burning, the "place" and softer bricks being found on the weather side. There is no kind of brick in the London market which, for durability and general all-round purposes of construction, bears a better character and record than the much-used London stock. For exterior work it seems capable of withstanding the varying vicissitudes of all weathers with no appreciable effect. For interior work, where plastered, it affords a better clinging surface than any other kind of brick; is capable of resisting enormous crushing weights (when thoroughly vitrified); and when built with well-wetted bricks thoroughly flushed up will knit together, acquiring a degree of toughness to an extent which no other kind of bricks seem capable of acquiring when built together. The attribute of toughness seems in some cases to be overlooked when scientifically testing the strength of material—a fact brought out by Messrs. Mowlem and Burt in the present year, when contesting the result of one of Kirkaldy's tests with respect to the durability of road metalling, a report of which appeared in the *Building News*. The attribute of toughness in stock brickwork presents itself in old foundations during their structural alteration or removal more than in any other part of a building.

For some few years past the London stock proper has had a rival in the brick market in the shape of the Fletton brick, advertised as a superior stock brick, the interior work of the General Post-Office now building being of these bricks. The first quality of Fletton bricks are unquestionably good, well-finished bricks, possessing the qualities and characteristics in make peculiar to most pressed bricks, viz., density or compactness of structure, weight, sharp, well-defined arrises and well-finished faces, combined with truthfulness of form. These bricks, like most others, vary much in quality, the inferior kinds being known to the practised eye by a condition which in the ordinary London stock brick would be described as "shuffy,"

derived from the word "shuff," applied to the most inferior class of bricks produced by clamp-firing. The Fletton brick, however, being made under entirely different conditions to that of the ordinary stock, and being kiln-burnt instead of clamp-burnt, is much above the level of the "shuff" proper found in stock bricks. The edges of such of the Fletton bricks are broken away, the beds of the bricks having a general appearance of a want of cohesion, and when broken in two presenting a loose and frequently a cracked section, showing the bricks to be made from a strong, refractory clay, which, in such particular instances, has not been sufficiently pugged, and evidence of which, in the shape of core or stones, is sometimes found in these bricks. The writer has known instances of core in some of the best clays breaking the shafting of the pugging machine during the process of tempering the clay. Mr. Kirkaldy has reported very favorably of the Fletton brick with respect to its resistance to crushing; but for exterior facings, as compared with stock bricks, it has the disadvantage of not having been in use sufficiently long (at least, in the Metropolis) for an opinion to be safely expressed as to its

weathering capabilities. It is well suited for interior facings intended for distemper; but for plastered walls its smooth face, the result of being pressed in a metallic mould, does not afford the same amount of clinging surface or "key" for the plastering as an ordinary London stock brick. It may be said that the rough cut mortar joints over the whole area of the wall afford sufficient "key" to uphold the wall plastering in position, irrespective of any adhesion on the faces of the bricks. In cases of this kind it is safest to judge by comparison. Fletton bricks are cheaper than good London stocks, and take less mortar in building, a consideration which accounts for the London builder being an ardent advocate of their use.

Some specifications provide against the use of bats in the walls unless occurring as legitimate bond, which practically means the exclusion of the use of bats, the cases in which they would be required as legitimate bond being few indeed. The clause may also be understood as one of these conditions or guards with which the architect finds it necessary to hedge himself about when dealing with the modern com-

petitive builder, in some instances remarkable for his astuteness in finding out the weak points of a specification, and bringing his sharp practice to bear on them with a view to prospective extras as a means of pulling him through on a low-priced bill of quantities, and whose idea of building seems to be the throwing together of so much crude or wrought material, as the case may be.

The quantity of bats in a freight of bricks is generally a good criterion as to their hardness, provided the bricks have been loaded fairly from the clamp; that is to say, taken fairly as they stand without sorting. The softer bricks get very much broken in the different operations of handling in transit to the job. Another surer sign of soft inferior bricks is the great amount of brick dust present in the bottom of the cart or boat when unloading the bricks, due to the attrition of their soft faces, good, hard bricks making little or no dust; a large amount of dust present at once exciting the suspicion of the practical man as to the quality of the bricks. In a recent case at law in connection with the roofing-tile trade it was



contended, and ultimately ruled, that $2\frac{1}{2}\%$ of defective tiles is the recognized maximum quantity allowed in every freight. A similar rule, by tacit acceptance, we believe applies to the quantity of bats in a freight of bricks—the maximum proportion being two bats to every four unbroken bricks—or, using a term of the trade, two bats to every “hand of bricks,” the bricks, for convenience’ sake, being handled five at a time, the two bats counting as one brick. In this way 80% of whole bricks are obtained. The use of bats is often a vexatious question, and the cause of much friction on the building between the representative of the contractor on the one side, and the representative of the architect on the other. A practice of the writer in the supervision of brickwork is not to object to the use of bats if three whole headers intervene between every two bats, by which arrangement 75% (seventy-five per cent) of the heading courses are whole bricks. But with every alternate header a whole brick, no danger need be apprehended under ordinary circumstances of building, provided the work be well flushed up every course, for brick walls are seldom, if ever, found to fracture longitudinally for two reasons, viz., that fractures in brickwork are, as a rule, due to defective foundations, which defects generally show themselves in a direction transverse to the wall; and that the longitudinal bond or lap of the brickwork is only $2\frac{1}{4}$ in., while the transverse bond or lap is $4\frac{1}{2}$ in. The weakness of a wall, and of its foundations, is in a line at right angles to its line of direction, or the line in which the least resistance to fracture is offered. Large walls and piers are too often regarded by the builder as legitimate receptacles of the smaller material of building—an idea not alone peculiar to the bricklayer, nor to present day practice, but one also held, in some instances at least, by the mediaeval builders, who built their great hearts into the sculptured stones, and evidence of which may be seen in the remaining ruins of St. John’s, Chester, and in the account of the survey of Peterborough Cathedral by John L. Pearson, in which he assigned the dangerous condition of the tower to be due to the fact that the great piers were little better than cased masonry filled in with rubble or unbonded stones.

LIBRARY ARCHITECTURE.

The American Library Association is preparing an exhibit for the World’s Columbian Exposition at Chicago, under the auspices of the United States Bureau of Education. A prominent position in the exhibit is to be assigned to Library Architecture. The purpose of this department will be twofold. On the popular side it will serve to call public attention to the architectural importance and significance of libraries; and to suggest to communities and to individuals the erection of library buildings. For this purpose large and effective exterior views or models are particularly desired. On the professional and technical side it is intended to show the development and present state of library science, as regards the adaptation of the building and its equipment to the practical purposes of a library. In this direction more importance attaches to floor plans, sections, and interior details than to exteriors.

Trustees, librarians, and architects are invited to send for exhibition drawings or photographs of existing or proposed library buildings or rooms, whether built for the purpose or altered from premises intended for other use. While it is earnestly desired that the large modern libraries should send full sets of plans, it is equally to be hoped that the older and smaller libraries will contribute; for most of the libraries of the future which will derive benefit from this exhibit will be of moderate size and means.

Librarians and trustees are asked to send, with their plans, suggestions as to merits or defects which have been developed in use.

Architects who are preparing plans for library buildings, or who have submitted plans in recent competitions, are invited and urged to send them for exhibition, inasmuch as any carefully matured plan, even if not adopted, may contain features of practical interest to librarians.

If plans are prepared expressly for this exhibition, it is recommended that they be made on a scale of $\frac{1}{4}$ inch to the foot, and rendered with India ink. The largest frames on which the plans are to be displayed will be 28 inches high by 40 inches wide, so that plans should not exceed that size. Many of the frames will be only 22 x 28 inches, and this size of plan is preferred by the Bureau of Education.

The plans and models contributed will be arranged and displayed as effectively as the available space will permit. After the Exposition, they are to form part of a permanent library exhibit. If the

contributors are unwilling to part with their drawings for this purpose, it is hoped that photographic copies may be permitted.

The Library Association of the United Kingdom has promised thirty or more representative plans of English and Scotch library buildings, and if the American collection can be made thorough and representative, the combined exhibit will not only be very useful to those interested in library administration, but it may also serve to stimulate and encourage the building of libraries in all parts of the United States.

Notification of willingness to send plans should be sent at once, and the plans should be forwarded (flat), as early as possible, to C. C. Soule, 15½ Beacon Street, Boston, Mass.

For the Exposition Committee of the American Library Association: Charles C. Soule, *Trustee*, Brookline Public Library; Samuel S. Green, *Librarian*, Worcester Public Library; George W. Harris, *Librarian*, Cornell University, Sub-committee on Architecture.

DECEMBER 1, 1892.

We would suggest to the manufacturers a possible application of the electrotyping process to the manufacture of moulds for ornamental bricks. Perhaps the idea is already an old and discarded one, but we have never heard of its being tried. As many know, the process of electrotyping consists of making an impression in wax, on which a coating of copper is deposited by means of electricity. This coating or film is then backed up by a base of softer metal. In making a brick mould, a plaster cast of the mould would have to be first made from the model of the brick. From this cast a wax model of the brick could be taken. On this the copper film would be deposited, removed, and backed up, giving an absolutely perfect mould of the model. Possibly the use of this process would be more expensive than the present mode of making brass moulds. It is offered as a “printer’s” suggestion, for what it may be worth.

CORRECTIONS.

The first plate in the September number, a brick fireplace, submitted in competition by “One Year Cub,” was designed by Mr. S. E. Gideon, Louisville, Ky. By some slip, Mr. Gideon’s name did not reach us with his design, and, consequently, he could not be given due credit at the time of publication.

By a misprint the supplement of our September number—the clock-tower of Hampton Court Palace—was entitled “Church Tower,” which, of course, it is not, but simply a gateway tower.

CORRESPONDENCE.

46 EAGLE ST., ALBANY, N. Y., NOV. 27, 1892.

TO THE EDITOR OF THE BRICKBUILDER.

Dear Sir,—I have read your article on page 66 about terra-cotta, and I fully indorse all you say. To reproduce stone forms in terra-cotta would be beneath contempt if there were not some excuse; in the fact that it is extremely difficult to obtain any information as to how it ought to be treated, I have vainly hunted for any work on the subject; and if you would devote say a page each month to giving information on the designing in terra-cotta, etc., you would doubtless oblige others besides, yours very faithfully,

With Edw. Ogden & Son.

ARTHUR CLAPTON.

ELYRIA, O., NOV. 27, 1892.

EDITOR BRICKBUILDER, Boston, Mass.:—Shall build next season and intend to finish inside walls of kitchen with some kind of vitrified glazed brick or enamelled brick so that the walls can be easily cleaned. Should like your opinion on this subject in the next issue of BRICKBUILDER, stating kind of material to use.

Very respectfully,

P. D. REEFY, M. D.

HARTFORD, CONN., NOV. 14, 1892.

THE BRICKBUILDER PUB. CO., BOSTON, MASS.

Dear Sirs,—Can you give us the names of any firms making moulded brick of the same stuff that common brick is made of?

Respectfully,

COOK, HARGOOD & CO.

THE BRICKBUILDER, Boston:—Gents, can you inform me where I can get a book or information regarding the material and formula for mixing different colored mortars, also for cleaning down brick-work, and other points necessary?

Very respectfully,

C. C. BUCK.